



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/786,503

02/26/2004

Akira Yoda

Q79994

4316

23373 7590 11/26/2007
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

WASHINGTON, JAMARES

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

11/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Supplemental
Office Action Summary

Application No.

10/786,503

Applicant(s)

YODA, AKIRA

Examiner

Jamares Washington

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 4-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, and 4-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

In response to applicant's telephone inquiry on regarding the previous Office Action, the following corrective action is taken:

A replacement Office Action is provided hereinbelow that addresses the rejection of claim 12.

A new shortened statutory time period of three (3) MONTHS and a new statutory period for reply is restarted to begin with the mailing date of this letter.

Where for any reason it becomes necessary to remail any action (MPEP § 707.13), the action should be correspondingly redated, as it is the remailing date that establishes the beginning of the period for reply. Ex parte Gourtuff, 1924 C.D. 153, 329 O.G. 536(Comm'r Pat. 1924). For Image File Wrapper (IFW) processing, see IFW Manual.

MPEP 710.06

A supplementary action after a rejection explaining the references more explicitly or giving the reasons more fully, even though no further references are cited, establishes a new date from which the statutory period runs.

MPEP 710.06

Response to Amendment

1. Applicant's amendment and response received on August 23, 2007 have been entered.

Claims 1-21 are currently pending. Claim 3 has been canceled. Claims 20 and 21 have been added. Applicant's newly amended claims, specification, and arguments are addressed hereinbelow.

Specification

2. Examiner has noted and entered the deletion of hyperlinks in the specification and withdraws the objection to the currently amended specification pertaining to this matter.

Claim Objections

3. Examiner has noted and entered the amendment to claims 6 and 10. In light of the amendments, examiner withdraws objection.

Claim Rejections - 35 USC § 101

4. Examiner has noted and entered the amendments to claims 17-19, which now direct the claims to statutory subject matter. Therefore, examiner withdraws previous rejection of the aforementioned claims.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2, 4-11, and 13-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Geoffrey B. Rhoads (US 20030128861 A1).

Regarding claim 1, Rhoads discloses print generating device for hiddenly embedding first information in an image to acquire an information-attached image (Fig. 2 and ¶ [107]) and generating a print on which said information-attached image is recorded (¶ [160]), comprising:

embedding means (¶ [177]) for hiddenly embedding the first information in the image (¶ [270]); and

information attaching means for attaching second information (Fig. 2 numeral 224 and ¶ [107]), which indicates that said first information is embedded in said image (Fig. 2 numeral 216 and ¶ [103]), to said print wherein said information attaching means is means to attach said second information to said print by a visual mark (¶ [19], ¶ [23], and ¶ [413]). As explained in paragraph 19, the watermark structure can have multiple components, each having different attributes including location and orientation. For example, one component may carry a message, while another component may serve to identify the location or orientation of the watermark similar to a "calibration pattern" as previously rejected. While described here as watermark components, one can also construe the components to be different watermarks. This enables the watermark technology described throughout the reference to be used in applications using two or

more watermarks. The calibration patterns have been described as adjuncts to digital watermarks, facilitating their detection. Therefore, the "calibration pattern" merely stands in for the fact that an additional watermark can be used to realize the same functionality of the "calibration pattern" (as stated above).

Regarding claims 2, 5-11 and 13-19, the rejections as advanced in the previous Office Action are incorporated herein by reference. The applicant, in the response, did not address these rejections concerning the art; examiner shall maintain previous grounds of rejection. Amendments to claims 6, 10, and 17-19 were merely to fix or clarify objections or rejections for other intents outside art rejections.

Regarding claim 4, Rhoads discloses an information detecting device ("The detector looks for the watermark signal..." at paragraph [24]) comprising:

input means for receiving photographed-image data obtained by photographing an arbitrary print...with image pick-up means ("The detector performs a series of preprocessing operations on the native image...It begins by filling memory with one or more frames of native image data..." at paragraph [167], "In applications where a camera captures an input image..." at paragraph [168], "A digital camera or scanner 43 may be used to capture the target image for the detection process described above" at paragraph [252]).

judgment means for judging whether or not second information, which indicates that first information is embedded in an image, is detected from said photographed-image data ("Indeed, the use of such calibration patterns to register both watermark and visible structure image data

for recognition is an important economy that can be gained by integration of a visible structure detector and a watermark detector into a single system" at paragraph [383]), and processing means for performing a process for detection of said first information on only the photographed- image data from which said second information is detected ("To extract the message, the reader captures a representation of the signal suspected of containing a watermark and then processes it to detect the watermark and decode the message" at ¶ [78]). The location of the watermark is given from the second information as rejected in claim 1 above. The reader captures only the part suspected of containing a watermark (from the information given by the second information/watermark) and processes it accordingly. Examiner maintains previous grounds of rejection incorporated herein from previous office action explaining further challenges of the capture/read processing with further explanation given above.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Geoffrey B. Rhoads in view of Hisayuki Yamagata (US 20020018139 A1).

Regarding claim 12, the rejection as advanced in the previous Office Action is incorporated herein by reference. The applicant, in the response, did not address this rejection concerning the art; examiner shall maintain previous grounds of rejection substituting the newly rejected claim 4 from which it depends.

9. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geoffrey B. Rhoads in view of well known prior art.

Regarding claim 20, Rhoads suggests the print generating device according to claim 2, wherein the embedding manner of the second information is easier to process than the embedding manner in which the first information is embedded (§ [19]) with reference to signal strength of the watermarks). Rhoads states that two watermarks may have differing signal strengths, which is directed towards the “reading level” or processing of the particular watermark.

Rhoads does not expressly state that the second information is easier to process than the first information although suggesting this is indeed possible.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the second information, embedded in the image, easier to process or “read/decode” than the first information because the second information embedded in the image merely contains information to alert the user and reader to further information embedded within the image and would therefore reduce processing time.

Regarding claim 21, Rhoads suggests the print generating device according to claim 1, wherein the second information is low-frequency information (§ [105]).

Rhoads does not expressly state that the second information is low-frequency information although suggesting this is indeed possible.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the second information according to claim 1, wherein the second information is attached by a visual mark, to be embedded utilizing low-frequency information because, as stated by Rhoads in paragraph 105, "...if the [impulse functions] are located in a low frequency range, they may be noticeable in the watermarked image". Since the second information is noticeable and should be easier to process, it would be obvious to utilize low frequency information as the second information.

Response to Arguments

10. Applicant's arguments filed August 23, 2007 have been fully considered but they are not persuasive.

Applicant's remark: With regards to the argument that Rhoads does not disclose or otherwise teach attaching second information which indicates that the first information is embedded in the image and which is a visual mark. "While the calibration pattern is a visual feature on the image, Rhoads is clear that the calibration pattern is not itself a

watermark... Accordingly, the calibration feature does not indicate that the first information (i.e., watermark) is embedded in the image”.

Examiner's response: As shown above in the explanation of the rejection of claim 1, Rhoads teaches attaching second information which indicates that the first information is embedded in the image, which is a visual mark. As explained, the different components of a watermark signal may be construed as separate watermarks. A component of the watermark signal may serve to identify the location or orientation of a first watermark. This suggests that one watermark (which is visible) can be used to detect the presence and location of first information (i.e., a first watermark). In describing this, it is clear that a second information (i.e., watermark) serves as a visual “calibration pattern” which alerts the watermark reader to the presence and location of additional information within the image. The second information is clearly attached and indicates that the first information is embedded in the image as described in the rejection of claim 1 above. Claim 17 recites similar features to claim 1, and accordingly is rejected on the same grounds as claim 1.

Applicant's remark: With regard to claim 4 being disclosed by Rhoads at paragraph 183. Applicant ascertains that the cited portion does not disclose detection of the first information on only a portion of the photographed image data.

Examiner's remark: See rejection for claim 4 above. The processing means used to counteract the effects of distortion in an image has to first detect the first information located

within the photographed-image data, which is indicated by the second information (as described in the rejection of claim 4 above).

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jmares Washington whose telephone number is (571) 270-1585. The examiner can normally be reached on Monday thru Friday: 7:30am-5:00pm.

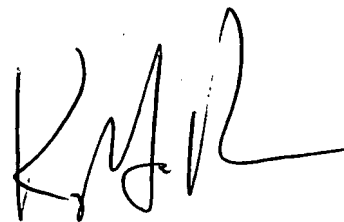
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/786,503
Art Unit: 2625

Page 11

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jamares Washington
Junior Examiner
Art Unit 2625



KING Y. POON
SUPERVISORY PATENT EXAMINER



JW

November 20, 2007